

SERVICE MANUAL



FISHER

GRAPHIC EQUALIZER

EQ-874

EUROPE



139 225 40

SPECIFICATION

Input Impedance	50 k Ω
Output Impedance	2 k Ω
T.H.D. (Flat Position)	
at 1 V Output	0.02 %
at 5 V Output	0.02 %
Gain (Flat Position)	+ 0 dB, -1.0 dB
Max. Output Voltage at 1 % T.H.D.	5 V
Frequency Response	
20 Hz - 20 kHz	+ 0.1 dB, -0.5 dB
Tone Control Response	
Center of Frequency	± 10 %
64 Hz	± 12 dB
160 Hz	± 12 dB
400 Hz	± 12 dB
1 kHz	± 12 dB
2.5 kHz	± 12 dB
6.3 kHz	± 12 dB
15.6 kHz	± 12 dB

S/N (IHF A, Reference 1 V, Flat Position)	100 dB
Crosstalk	
100 Hz	80 dB
1 kHz	80 dB
15 kHz	60 dB

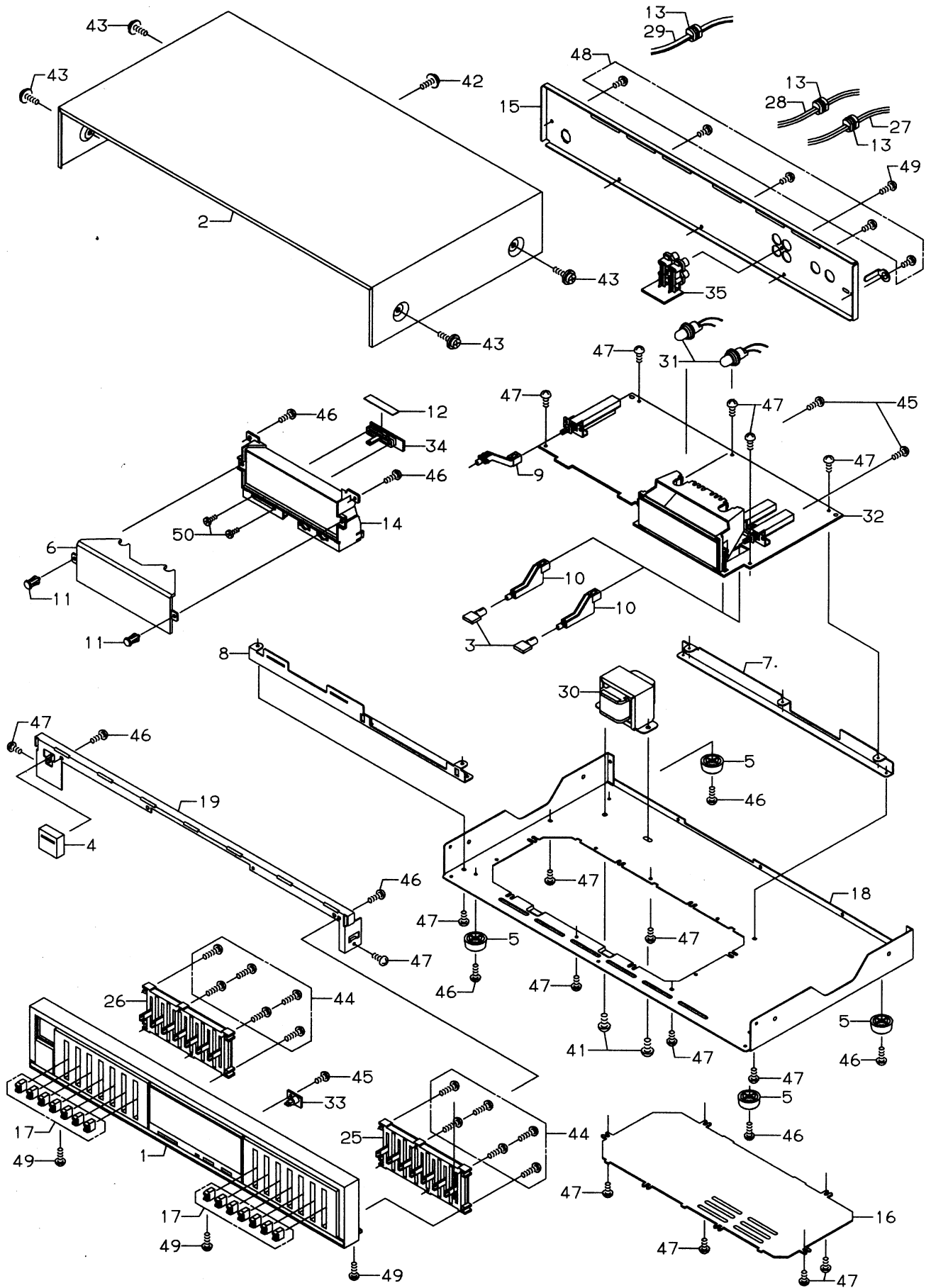
GENERAL

Power Requirements (50Hz)	220 V AC
Power Consumption	10 W
Dimensions (WxHxD)	440 x 80 x 267 mm
Weight (approx)	3.2 kg

— Specifications and design are subject to change without notice. —

REFERENCE No. WM-19535

CABINET & CHASSIS EXPLODED VIEW



CABINET & CHASSIS PARTLIST

Ref. No.	Parts No.	Description	Q'ty
PACKAGE			
	131-2-3901-10300	Staple SS19mm	14
	131-6-1169-14034	Box Corrugate-Exp	1
	131-6-3009-35090	Pad	2
	131-6-3069-16350	Patching Sheet	1
	141-6-2519-22290	Sheet Polyethylene	1
	141-6-4559-03300	Serial No. Sheet	2
ACCESSORY			
	131-6-2719-10401	Bag Fan	1
	142-6-4119-33426	Explanatory Booklet	1
CABINET			
	4-2352-02944	Connector 1P Assy	1
	4-2359-78834	Connector 1P Assy	1
	4-2379-21520	Terminal Lug	1
	141-6-4559-03300	Serial No. Sheet	1
1	131-0-1016-46101	Cabinet Front Assy	1
2	131-2-1410-31500	Cover	1
3	131-2-1601-70103	Knob	2
4	131-2-1601-85209	Knob Push	1
5	131-2-1801-14100	Leg	4
6	131-2-3608-17400	Filter (Clear)	1
7	131-2-3614-29400	Mount P.C.B.	1
8	131-2-3614-29500	Mount P.C.B. (F)	1
9	131-2-4219-18800	Shaft	1
10	131-2-4219-19900	Shaft	2
11	131-2-4221-00600	Rivet	2
12	131-2-6108-12800	Plate Sever	1
13	131-2-6111-14200	Bushing (4N-4)	3
14	141-0-1149-17700	Mount Screen Assy	1
15	141-2-1219-37022	Panel Rear	1
16	141-2-1259-11300	Cover Bottom	1
17	141-2-1659-46200	Knob Slide	14
18	141-2-3119-31900	Chassis	1
19	141-2-3519-74203	Mount Cabi Front	1
25	4-2229-77140	Slide VR Unit	1
26	4-2229-77141	Slide VR Unit	1
27	4-2369-74592	Plug Cord RCA	1

Ref. No.	Parts No.	Description	Q'ty
28	4-2369-74593	Plug Cord RCA	1
29	△ 4-2432-00071	Power Cord	1
30	△ 4-2512-35120	Power Trans Tabuchi	1
31	4-6129-70723	Lamp 16V 150mA	2
32	141-0-1939-21300	Main P.C.B. Assy	1
33	141-0-1939-21310	LED P.C.B. Assy	1
34	141-0-1939-21320	Volume P.C.B. Assy	1
35	141-0-1939-21330	Pinjack P.C.B. Assy	1
41	131-2-4201-27801	Screw C-Tite 4X8 Z1	2
42	141-2-4219-33101	+ BTS-B 3.0X8 Sems BL	1
43	141-2-4219-38400	+ BTS-B 4 x 8 Sems BLK	4
44	411 020 5409	SCR S-TPG BRZ 2.6X14	12
45	411 020 5706	SCR S-TPG BRZ 2.6X8	3
46	411 020 5904	SCR S-TPG BRZ 3X10	8
47	411 020 7700	SCR S-TPG BRZ 3X6	17
48	411 099 9704	SCR S-TPG BRZ 3X6	5
49	411 099 9803	SCR S-TPG BRZ 3X8	4
50	411 030 5901	SCR BIN 2X4	2

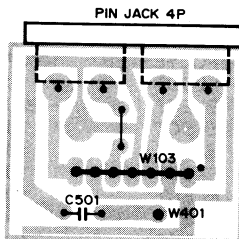
NOTES:

- Parts order must contain Model Number, Part Number and Description.
- Ordering quantity of screws and resistors must be multiple of 10 pcs.

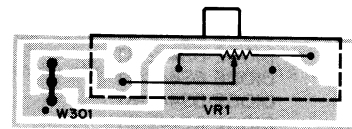
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

PINJACK P.C.BOARD (BOTTOM VIEW)



VOLUME P.C.BOARD (BOTTOM VIEW)



LED P.C.BOARD (BOTTOM VIEW)



P.C.BOARD PART LIST

Ref. No.	Parts No.	Description	Q'ty	Ref. No.	Parts No.	Description	Q'ty
MAIN P.C.B. ASSY				C204	403 049 1609	ELECT	1U M 50V 1
32	141-0-1939-21300	Main P.C.B. Assy	1	C205	403 009 8105	CERAMIC	100P K 50V 1
	4-2359-79150	Socket Jumper 11P	2	C206	403 009 8105	CERAMIC	100P K 50V 1
	4-2369-73130	Plug 3P	2	C207	403 009 8105	CERAMIC	100P K 50V 1
	4-2372-00830	EC Terminal 1P	2	C208	403 009 8105	CERAMIC	100P K 50V 1
	4-9549-70120	LCD, FTD6497	1	C209	403 049 5409	ELECT	10U M 50V 1
	111-2-6220-11100	Wire Wrap Terminal	11	C210	403 049 5409	ELECT	10U M 50V 1
	131-2-6306-12300	Reflector	1	C211	403 067 8208	MT-COMPO	0.068U J 50V 1
	131-2-6308-26100	Filter	1	C212	403 067 8208	MT-COMPO	0.068U J 50V 1
	131-2-9800-01004	Jumper	1	C213	403 096 8606	ELECT	1.5U K 50V 1
	411 002 8503	SCR PAN 3X6	1	C214	403 096 8606	ELECT	1.5U K 50V 1
SW01	4-2312-06160	Push SW 1 KEY (POWER SW.)	1	C215	403 060 2005	POLYESTER	0.027U J 50V 1
SW02	4-2312-06170	Push SW 2 KEY (TAPE MONITOR/EQ)	1	C216	403 060 2005	POLYESTER	0.027U J 50V 1
W101	4-2359-78831	Connector 1P Assy	1	C217	403 067 8307	MT-COMPO	0.68U J 50V 1
IC01	409 036 8101	IC M5229P	1	C218	403 067 8307	MT-COMPO	0.68U J 50V 1
IC02	409 036 8101	IC M5229P	1	C219	403 057 0106	POLYESTER	0.01U J 50V 1
IC03	409 073 8706	IC LA6458D	1	C220	403 057 0106	POLYESTER	0.01U J 50V 1
IC04	409 073 8706	IC LA6458D	1	C221	403 067 7003	MT-COMPO	0.27U J 50V 1
IC05	409 073 8706	IC LA6458D	1	C222	403 067 7003	MT-COMPO	0.27U J 50V 1
IC06	409 073 8706	IC LA6458D	1	C223	403 061 1908	POLYESTER	3900P J 50V 1
IC07	409 074 1102	IC LC7561	1	C224	403 061 1908	POLYESTER	3900P J 50V 1
Q101	405 013 6801	TR 2SC2274-E	1	C225	403 067 5603	MT-COMPO	0.1U J 50V 1
or	405 013 7006	TR 2SC2274-F	1	C226	403 067 5603	MT-COMPO	0.1U J 50V 1
Q102	405 006 6504	TR 2SA984-E	1	C227	403 058 7906	POLYESTER	1800P J 50V 1
or	405 006 6702	TR 2SA984-F	1	C228	403 058 7906	POLYESTER	1800P J 50V 1
Q103	405 004 4502	TR 2SA608-F-NP	1	C229	403 061 3704	POLYESTER	0.039U J 50V 1
or	405 004 5004	TR 2SA608-G-NP	1	C230	403 061 3704	POLYESTER	0.039U J 50V 1
Q201	405 019 2708	TR 2SC536-F-NP	1	C231	403 031 2805	CERAMIC	680P K 50V 1
or	405 019 3804	TR 2SC536-G-NP	1	C232	403 031 2805	CERAMIC	680P K 50V 1
Q202	405 019 2708	TR 2SC536-F-NP	1	C233	403 058 9603	POLYESTER	0.018U J 50V 1
or	405 019 3804	TR 2SC536-G-NP	1	C234	403 058 9603	POLYESTER	0.018U J 50V 1
Q203	405 016 2206	TR 2SC2878-A	1	C235	403 020 4902	CERAMIC	270P J 50V 1
or	405 016 2305	TR 2SC2878-B	1	C236	403 020 4902	CERAMIC	270P J 50V 1
Q204	405 016 2206	TR 2SC2878-A	1	C237	403 062 9705	POLYESTER	6800P J 50V 1
or	405 016 2305	TR 2SC2878-B	1	C238	403 062 9705	POLYESTER	6800P J 50V 1
Q301	405 016 2206	TR 2SC2878-A	1	C301	403 067 7706	MT-COMPO	0.047U J 50V 1
or	405 016 2305	TR 2SC2878-B	1	C302	403 067 7706	MT-COMPO	0.047U J 50V 1
Q302	405 027 0505	TR 2SK246-GR	1	C303	403 057 0106	POLYESTER	0.01U J 50V 1
or	405 034 5104	TR 2SK246-BL	1	C304	403 057 0106	POLYESTER	0.01U J 50V 1
Q303	405 027 0505	TR 2SK246-GR	1	C305	403 061 1908	POLYESTER	3900P J 50V 1
or	405 034 5104	TR 2SK246-BL	1	C306	403 061 1908	POLYESTER	3900P J 50V 1
D101	407 004 9105	DIODE DSF10C-BT	1	C307	403 058 0808	POLYESTER	1500P J 50V 1
D102	407 004 9105	DIODE DSF10C-BT	1	C308	403 058 0808	POLYESTER	1500P J 50V 1
D103	407 004 9105	DIODE DSF10C-BT	1	C309	403 057 6306	POLYESTER	1200P K 50V 1
D104	407 004 9105	DIODE DSF10C-BT	1	C310	403 057 6306	POLYESTER	1200P K 50V 1
D105	407 049 9504	ZENER DIODE GZA20Y	1	C311	403 057 6306	POLYESTER	1200P K 50V 1
D106	407 049 9504	ZENER DIODE GZA20Y	1	C312	403 057 6306	POLYESTER	1200P K 50V 1
D107	407 004 9105	DIODE DSF10C-BT	1	C313	403 056 8608	POLYESTER	1000P K 50V 1
D108	407 004 9105	DIODE DSF10C-BT	1	C314	403 056 8608	POLYESTER	1000P K 50V 1
D301	407 005 3805	DIODE DS442-BT	1	C315	403 049 1609	ELECT	1U M 50V 1
D302	407 005 3805	DIODE DS442-BT	1	C316	403 040 2704	ELECT	22U M 10V 1
D303	407 005 3805	DIODE DS442-BT	1	C317	403 049 1609	ELECT	1U M 50V 1
D304	407 005 3805	DIODE DS442-BT	1	C318	403 049 1609	ELECT	1U M 50V 1
D305	407 005 3805	DIODE DS442-BT	1	C319	403 049 1609	ELECT	1U M 50V 1
D306	407 005 3805	DIODE DS442-BT	1	C320	403 049 1609	ELECT	1U M 50V 1
D307	407 005 3805	DIODE DS442-BT	1	C321	403 049 1609	ELECT	1U M 50V 1
D308	407 005 3805	DIODE DS442-BT	1	C322	403 049 1609	ELECT	1U M 50V 1
D309	407 050 4802	ZENER DIODE GZA5.1Y	1	C323	403 049 1609	ELECT	1U M 50V 1
D311	407 005 3805	DIODE DS442-BT	1	C324	403 049 1609	ELECT	1U M 50V 1
C101	403 074 2701	CERAMIC 0.047U Z 50V	1	C325	403 060 6607	POLYESTER	3300P K 50V 1
C102	403 074 2701	CERAMIC 0.047U Z 50V	1	C326	403 038 2402	ELECT	100U M 6.3V 1
C103	404 012 7000	CERAMIC 0.01U P 500V	1	C328	403 047 4206	ELECT	47U M 25V 1
C104	404 012 7000	CERAMIC 0.01U P 500V	1	C329	403 050 1209	ELECT	2.2U M 50V 1
C105	404 012 7000	CERAMIC 0.01U P 500V	1	C330	403 050 1209	ELECT	2.2U M 50V 1
C106	404 012 7000	CERAMIC 0.01U P 500V	1	C401	403 074 2701	CERAMIC	0.047U Z 50V 1
C107	403 054 2509	ELECT 470U M 35V	1	R101	401 060 6504	OXIDE-MT	27 JB 1W 1
C108	403 054 2509	ELECT 470U M 35V	1	R102	401 060 6504	OXIDE-MT	27 JB 1W 1
C109	403 047 4206	ELECT 47U M 25V	1	R103	401 022 1905	CARBON	680 JA 1/4W 1
C110	403 047 4206	ELECT 47U M 25V	1	R104	401 022 1905	CARBON	680 JA 1/4W 1
C111	403 047 4206	ELECT 47U M 25V	1	R105	402 015 7706	FUSIBLE RE	100 J- 1/4W 1
C112	403 047 4206	ELECT 47U M 25V	1	R106	402 015 7706	FUSIBLE RE	100 J- 1/4W 1
C113	403 047 4206	ELECT 47U M 25V	1	R107	401 018 2800	CARBON	330 JA 1/4W 1
C114	403 047 4206	ELECT 47U M 25V	1	R108	401 020 0801	CARBON	470 JA 1/4W 1
C115	403 045 0606	ELECT 100U M 25V	1	R109	401 027 5502	CARBON	6.8K JA 1/6W 1
C116	403 047 4206	ELECT 47U M 25V	1	R110	401 024 7400	CARBON	10K JA 1/6W 1
C117	403 051 2007	ELECT 4.7U M 50V	1	R111	401 012 5708	CARBON	1K JA 1/4W 1
C201	403 009 8105	CERAMIC 100P K 50V	1	R201	401 024 7004	CARBON	1K JA 1/6W 1
C202	403 009 8105	CERAMIC 100P K 50V	1	R202	401 012 5708	CARBON	1K JA 1/4W 1
C203	403 049 1609	ELECT 1U M 50V	1	R203	401 027 0507	CARBON	470K JA 1/6W 1

P.C.BOARD PART LIST

Ref. No.	Parts No.	Description	Q'ty
R204	401 027 0507	CARBON 470K JA 1/6W	1
R207	401 027 2600	CARBON 5.6K JA 1/6W	1
R208	401 027 2600	CARBON 5.6K JA 1/6W	1
R209	401 027 2600	CARBON 5.6K JA 1/6W	1
R210	401 027 2600	CARBON 5.6K JA 1/6W	1
R211	401 026 6609	CARBON 390 JA 1/6W	1
R212	401 026 6609	CARBON 390 JA 1/6W	1
R213	401 024 7400	CARBON 10K JA 1/6W	1
R214	401 024 7400	CARBON 10K JA 1/6W	1
R215	401 024 7004	CARBON 1K JA 1/6W	1
R216	401 024 7004	CARBON 1K JA 1/6W	1
R217	401 024 7707	CARBON 100K JA 1/6W	1
R218	401 024 7707	CARBON 100K JA 1/6W	1
R219	401 026 4605	CARBON 33K JA 1/6W	1
R220	401 018 4903	CARBON 33K JA 1/4W	1
R221	401 027 5205	CARBON 680 JA 1/6W	1
R222	401 027 5205	CARBON 680 JA 1/6W	1
R223	401 027 5205	CARBON 680 JA 1/6W	1
R224	401 027 5205	CARBON 680 JA 1/6W	1
R225	401 027 5205	CARBON 680 JA 1/6W	1
R226	401 027 5205	CARBON 680 JA 1/6W	1
R227	401 027 5205	CARBON 680 JA 1/6W	1
R228	401 027 5205	CARBON 680 JA 1/6W	1
R229	401 027 5205	CARBON 680 JA 1/6W	1
R230	401 027 5205	CARBON 680 JA 1/6W	1
R231	401 027 5205	CARBON 680 JA 1/6W	1
R232	401 027 5205	CARBON 680 JA 1/6W	1
R233	401 027 5205	CARBON 680 JA 1/6W	1
R234	401 027 5205	CARBON 680 JA 1/6W	1
R301	401 027 3201	CARBON 560K JA 1/6W	1
R302	401 024 7707	CARBON 100K JA 1/6W	1
R303	401 027 2600	CARBON 5.6K JA 1/6W	1
R304	401 024 8001	CARBON 1M JA 1/6W	1
R305	401 025 2305	CARBON 150K JA 1/6W	1
R306	401 024 7400	CARBON 10K JA 1/6W	1
R307	401 024 8001	CARBON 1M JA 1/6W	1
R308	401 025 2305	CARBON 150K JA 1/6W	1
R309	401 024 7400	CARBON 10K JA 1/6W	1
R310	401 024 8001	CARBON 1M JA 1/6W	1
R311	401 025 2305	CARBON 150K JA 1/6W	1
R312	401 024 7400	CARBON 10K JA 1/6W	1
R313	401 027 3201	CARBON 560K JA 1/6W	1
R314	401 024 7707	CARBON 100K JA 1/6W	1
R315	401 027 2600	CARBON 5.6K JA 1/6W	1
R316	401 025 8703	CARBON 220K JA 1/6W	1
R317	401 026 4605	CARBON 33K JA 1/6W	1
R318	401 025 7805	CARBON 2.2K JA 1/6W	1
R319	401 024 7707	CARBON 100K JA 1/6W	1
R320	401 025 1902	CARBON 15K JA 1/6W	1
R321	401 024 7004	CARBON 1K JA 1/6W	1
R322	401 024 7707	CARBON 100K JA 1/6W	1
R323	401 026 6609	CARBON 390 JA 1/6W	1

Ref. No.	Parts No.	Description	Q'ty
R324	401 026 1307	CARBON 27K JA 1/6W	1
R325	401 026 4902	CARBON 330K JA 1/6W	1
R326	401 026 4902	CARBON 330K JA 1/6W	1
R327	401 026 4902	CARBON 330K JA 1/6W	1
R328	401 026 4902	CARBON 330K JA 1/6W	1
R329	401 026 4902	CARBON 330K JA 1/6W	1
R330	401 026 4902	CARBON 330K JA 1/6W	1
R331	401 026 4902	CARBON 330K JA 1/6W	1
R332	401 026 4902	CARBON 330K JA 1/6W	1
R333	401 023 3700	CARBON 82K JA 1/4W	1
R334	401 018 3807	CARBON 3.3K JA 1/4W	1
R336	401 012 4503	CARBON 100 JA 1/4W	1
R337	401 026 4605	CARBON 33K JA 1/6W	1
R338	401 012 8105	CARBON 100K JA 1/4W	1
R339	401 026 9907	CARBON 4.7K JA 1/6W	1
R340	401 026 9907	CARBON 4.7K JA 1/6W	1
R341	401 026 4308	CARBON 3.3K JA 1/6W	1
R342	401 026 4308	CARBON 3.3K JA 1/6W	1
R343	401 024 7004	CARBON 1K JA 1/6W	1
R344	401 024 7004	CARBON 1K JA 1/6W	1
R345	401 025 8703	CARBON 220K JA 1/6W	1
R346	401 025 8703	CARBON 220K JA 1/6W	1
R347	401 024 7707	CARBON 100K JA 1/6W	1
R348	401 024 7707	CARBON 100K JA 1/6W	1
R349	401 026 4902	CARBON 330K JA 1/6W	1
R350	401 026 4902	CARBON 330K JA 1/6W	1
R401	401 022 3107	CARBON 6.8K JA 1/4W	1
R402	401 022 3107	CARBON 6.8K JA 1/4W	1
R403	401 021 3009	CARBON 5.6K JA 1/4W	1
R404	401 021 3009	CARBON 5.6K JA 1/4W	1

LED P.C.B. ASSY

33	141-0-1939-21310	LED P.C.B. Assy	1
	131-2-4208-33600	Spacer	1
	131-2-9800-01055	Jumper	1
D401	407 027 4606	LED SLP-151B	1

VOLUME P.C.B. ASSY

34	141-0-1939-21320	Volume P.C.B. Assy	1
VR1	4-2229-75970	Slide VR 10KAX1	1
	131-0-4006-31418	Cord Assy	1

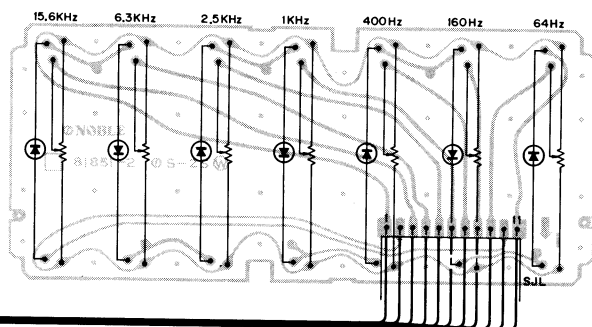
PINJACK P.C.B. ASSY

35	141-0-1939-21330	Pinjack P.C.B. Assy	1
	4-2352-01700	Pin Jack 4P	1
C501	403 074 2701	CERAMIC 0.047U Z 50V	1

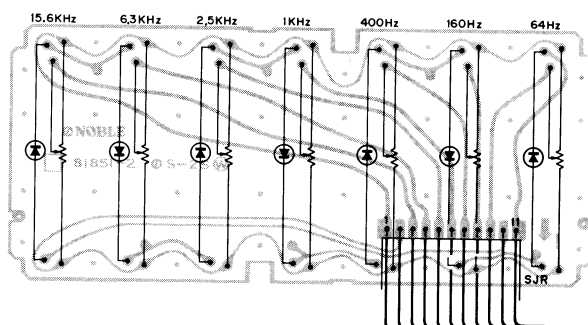
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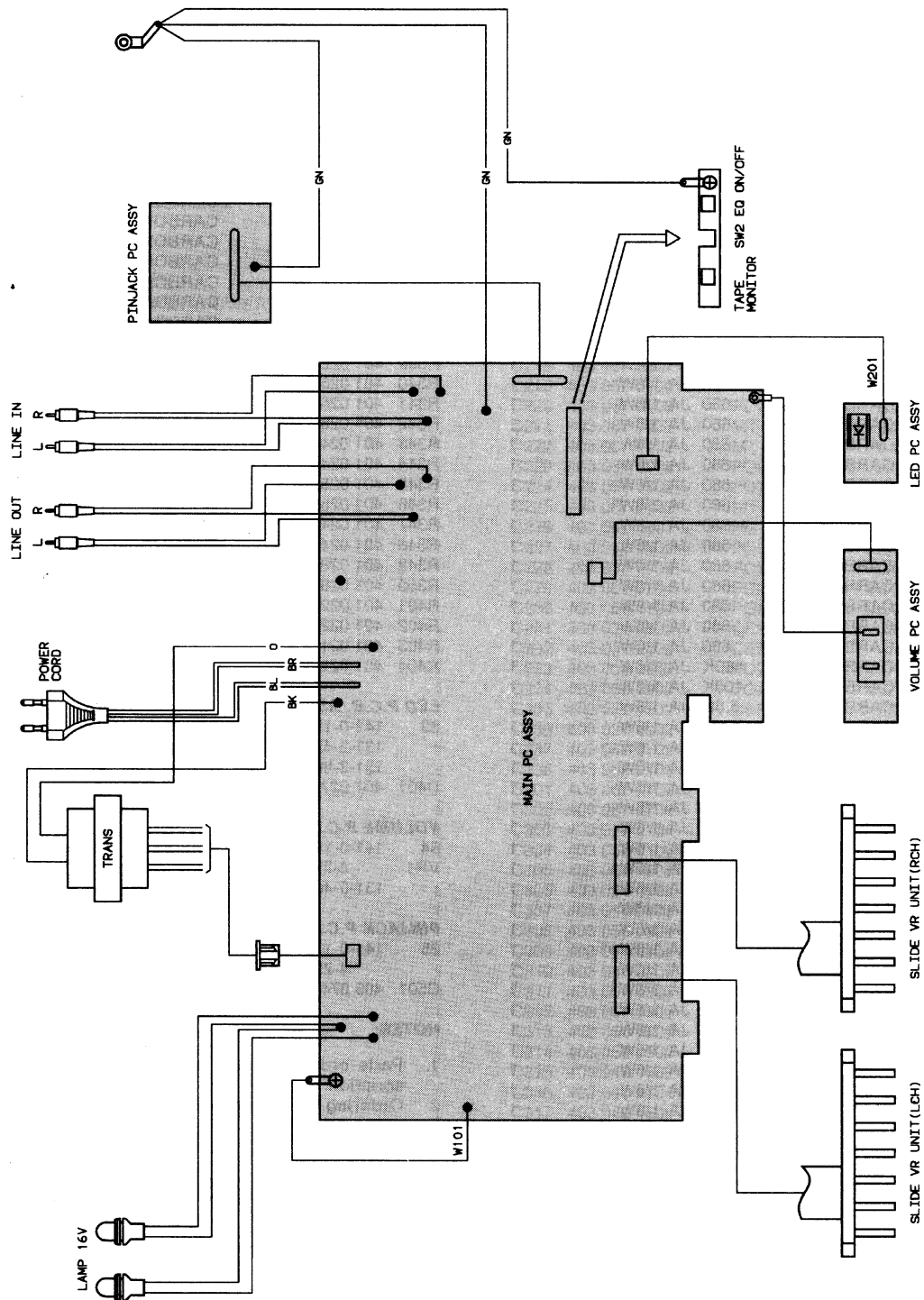
SLIDE VOLUME UNIT (LEFT)



SLIDE VOLUME UNIT (RIGHT)



POINT TO POINT WIRING DIAGRAM



SWITCH POSITION TABLE

No.	Name	Position
SW1	POWER Switch	OFF
SW2	TAPE MONITOR Switch	SOURCE
	EQUALIZER Switch	OFF

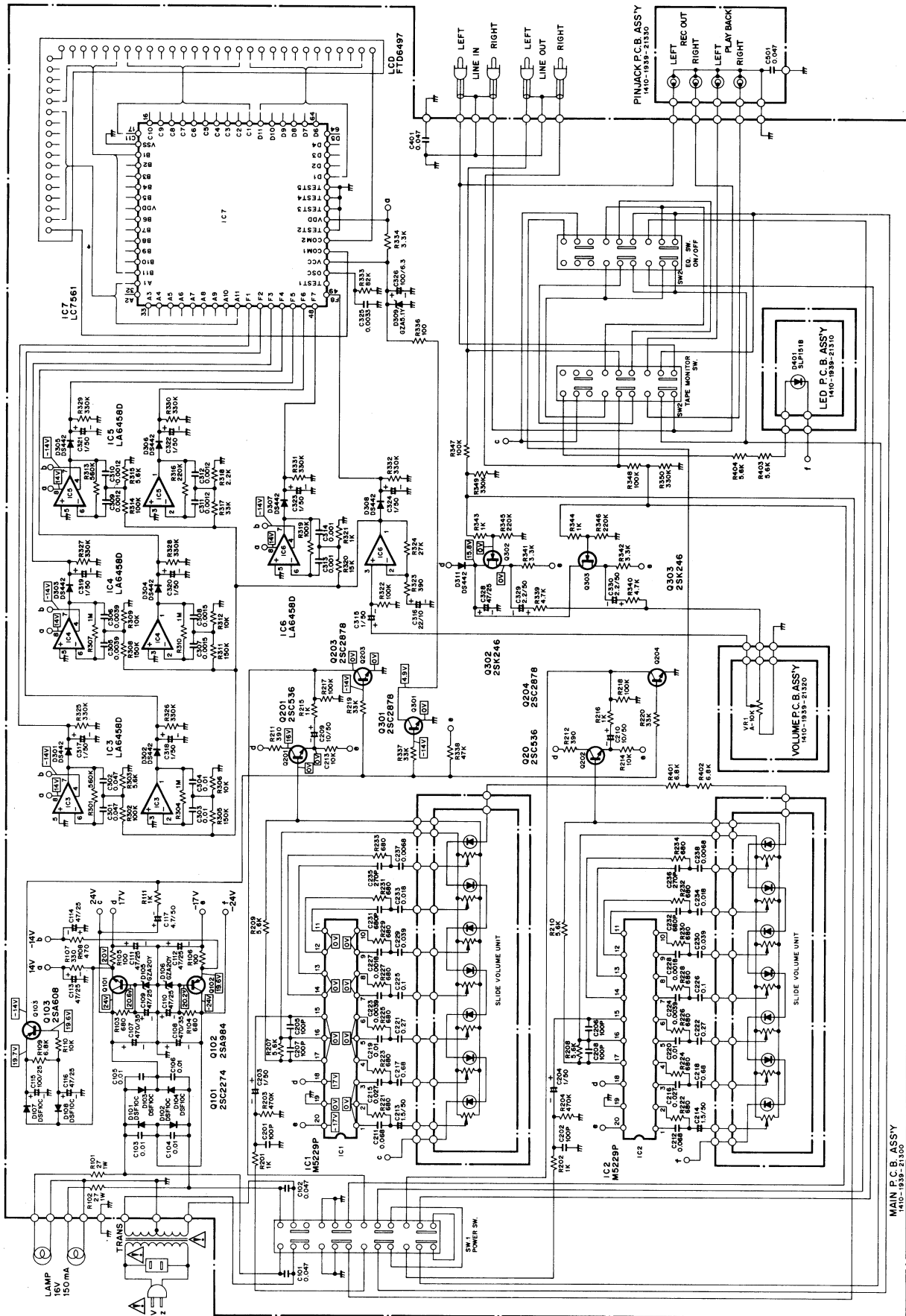
NOTES:

1. All resistors values are indicated in "ohm" (K = 10^3 , M = 10^6).
2. All capacitors values are indicated in " μ F" (P = 10^{-12}).
3. All voltages indicated on the schematics are measured under the following conditions.
 - a. Use a V.T.V.M.

- b. All voltages $\pm 10\%$ with respect to chassis ground.
- c. No signals at input terminals.
- d. AC input at 220 volts 50Hz
4. This is a basic schematic diagram.

Because Fisher products are subject to continuous improvement, Fisher Corporation reserves the right to make any changes or modifications without notice.

SCHEMATIC DIAGRAM



MAIN PRINTED CIRCUIT BOARD (BOTTOM VIEW)

